

## Patent claims:

1. A plug connector (1), for electrically connecting  
electronic components, comprising one or more contact  
5 elements (6) as well as a housing (2), which consists  
of a lower part (3) and of an upper part (4) that can  
be joined to said lower part (3), the contact elements  
(6) being contained between the lower part (3) and the  
10 upper part (4), the lower ends of the contact elements  
(6) projecting through openings (0) located in the  
housing (2), and the upper ends of the contact  
elements (6) being able to be contacted via openings  
(0) located in the upper part (4) of the housing (2),  
15 **characterized in that** the respective contact element  
(6) is formed from at least three limbs (61, 62, 63),  
which extend in a stepped manner inside the housing  
(2), one of the limbs (62) being flexibly arranged  
inside a cavity (11) formed between the upper part (4)  
20 and lower part (3).
2. A plug connector according to claim 1, characterized  
in that a middle limb (62) arranged between two outer  
limbs (61, 63) of the respective contact element (6)  
25 is flexibly arranged in the cavity (11).
3. A plug connector according to claim 2, characterized  
in that the two outer limbs (61, 63) extend  
30 approximately in the same direction, while the middle  
limb (62) in the region of the cavity (11) encloses  
with the respective outer limb (61, 63) an  
approximately equal-sized aperture angle  $\alpha$ , which  
allows for a bending deformation of the middle limb  
35 (62) of the contact element (6).

4. A plug connector according to one of the preceding claims, characterized in that the respective contact element (6) is formed in one piece.
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5. A plug connector according to one of the preceding claims, characterized in that several contact elements (6) are uniformly embodied and are arranged in the housing (2) at a constant distance from each other substantially in identical position.
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6. A plug connector according to one of the preceding claims, characterized in that the housing (2) comprises at least two bores (8) and at least two fixing elements (9) for fastening.
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7. A plug connector according to claim 6, characterized in that the fixing elements (9) are embodied as plastic tongues with a shoulder (A).
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8. A plug connector according to claim 6 or 7, characterized in that the fixing elements (9) taper towards their end.
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A Plug Connector for Electrically Connecting Electronic Components

5 For a plug connection, which is reliable and protected with regard to mechanical and thermal loads, with a plug connector (1), comprising one or more contact elements (6) as well as a housing (2), which consists of a lower part (3) and of an upper part (4) that can be joined to said  
10 lower part (3), the contact elements (6) being contained between the lower part (3) and the upper part (4), the lower ends of the contact elements (6) projecting through openings (0) located in the housing (2), and the upper ends  
15 of the contact elements (6) being able to be contacted via openings (0) located in the upper part (4) of the housing (2), it is provided that each contact element (6) is formed from at least three limbs (61, 62, 63) which extend in a stepped manner inside the housing (2), one of the limbs  
20 (62) being flexibly arranged inside a cavity (11) formed between the upper part (4) and lower part (3).

FIG. 3

## List of reference numerals

- 1 Plug connector
- 5 2 Housing
- 3 Lower part of the housing
- 4 Upper part of the housing
- 5 Contact element, comprising a
  - 10 61 outer limb, in particular a limb forming one end of the contact element
  - 62 middle limb of the contact element
  - 62 outer limb, in particular a limb forming the other end of the contact element
- 15 7 Mounting link
- 8 Bore
- 9 Fixing element
- 10 Contact bag
- 11 Cavity
- 20 12 Distance retainer
  
- A Shoulder
- H Joining aid
- K Partial conical surface
- 25 O Opening in the housing, in particular in the upper part and lower part
- $\alpha$  Aperture angle